

**Notice of Allowability**

Application No.

10/057,332

Examiner

Ranodhi Serrao

Applicant(s)

KOTSER, YOAV

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11 april 2006.
2. ☒ The allowed claim(s) is/are 27-45.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
RUPAL DHARIA  
SUPERVISORY PATENT EXAMINER

## DETAILED ACTION

### *Allowable Subject Matter*

1. Claims 27-45 are allowed. The following is an examiner's statement of reasons for allowance: In interpreting the claims, in light of the specification and the applicant's amendments filed on 11 April 2006, the Examiner finds the claimed invention to be patentably distinct from the prior art of record.

2. **Rekhter et al. (6,526,056)** teaches a service provider's routers (PE1, P1, P2, PE2) provide connections between and share routing information with routers (CE1, CE2) of a customer virtual private network (VPN) as well as routers of other customers' VPNs, which may have overlapping address spaces. A service provider's edge router (PE1) informed by the customer's router (CE1) that it will forward packets to a given prefix notifies the other edge router (PE2) that PE1 can forward packets to that address prefix if the destination is in the VPN to which CE1 belongs. PE1 also tells PE2 to tag any thus-destined packets with a particular tag T3. PE2 stores this information in a forwarding information base that it separately keeps for that VPN so that when PE2 receives from a router CE2 in the same VPN a packet whose destination address has that prefix, it tags the packet as requested. But PE2 also tags it with a tag T2 that the router P2 to which PE2 first sends it has asked PE2 to apply to packets to be sent to PE1. P2 routes the packet in accordance with T2, sending it to P1 after replacing T2 with a tag T1 that P1 has similarly asked P2 to use. P1 removes T1 from the packet and forwards it in accordance with T1 to PE1, which in turn removes T3 from the packet and forwards it in accordance with T3 to CE1. In this manner, only the edge routers need to

maintain separate routing information for separate VPNs (**Rekhter, Abstract, Fig. 1, and, corresponding text**).

3. **Gai et al. (6,032,194)** teaches a method that rapidly reconfigures a computer network having a plurality of devices executing the spanning tree algorithm. First, one or more devices are configured and arranged so that one port, providing connectivity to the root, is in the forwarding state and the remaining ports, providing connectivity to the root, are in the blocked state. Next, one or more of the blocked ports are designated as back-up ports. Upon detection of a failure at the active forwarding port, one of the back-up ports immediately transitions from blocked to forwarding, thereby becoming the new active port for the device. Following the transition to a new active port, dummy multicast messages are transmitted, each containing the source address of an entity directly coupled to the affected device or downstream thereof. By examining the dummy multicast messages, other devices in the network learn to use the new forwarding port of the affected device. Rapid reconfiguration of the network is also provided upon detection of a new or repaired link or device representing a better path toward the root. The method is also compatible with networks supporting virtual local area network (VLAN) designations and allows load balancing among different VLANs (**Gai, Abstract, Fig. 3D, and corresponding text**).

4. However, the prior art of record fails to teach or suggest individually or in combination that a method for communication, comprising: defining a topology of a transparent local area network service (TLS), comprising a system of label-switched tunnels between label-switched routers (LSRs) through a communication network, the

Art Unit: 2141

TLS having at least first and second endpoints to which first and second user equipment is connected so that the TLS acts as a virtual bridge between the first and second user equipment; transmitting control frames among the LSRS in the TLS via the label-switched tunnels, each control frame comprising a control traffic label and a bridge protocol data unit (BPDU) in accordance with a spanning tree protocol (STP), the control traffic label indicating to the LSRS that the STP is to be executed by the LSRs without transmission of the BPDU to the user equipment; and upon receiving the control frames at the LSRS, processing the BPDU, responsively to the control traffic label, so as to remove loops in the topology of the TLS irrespective of the user equipment, as set for in independent claims 27, 36, and 45. Claims 27-45 are allowed because of the combination of other limitations and the limitations listed above.


5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ranodhi Serrao whose telephone number is (571) 272-7967. The examiner can normally be reached on 8:00-4:30pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571) 272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2141

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
RUPAL DHARIA  
SUPERVISORY PATENT EXAMINER